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EDITORIAL DEPARTMENT NOTE

The three articles in this issue of the Bulletin deal with three different areas of interest for the industrial accountant. In the first article Donald Ackerman points out both the limitation and uses of wage incentives, with particular stress on the viewpoint that wage incentives are a supplement, not a substitute, for good management. The second article, by Dr. Devine, deals with immediate and postwar inventory problems and presents the author's view on the need for, and method of, attaining greater stability in reported profits. Job evaluation and wage and salary administration as affected by the war economy are discussed by William Weir in the third article.

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Articles published in the *Bulletin* present many different viewpoints. In publishing them the Association is not sponsoring the view expressed, but is endeavoring to provide for its members material which will be helpful and stimulating. Constructive comments are welcomed and will be published in the Forum Section of the *Bulletin*.

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WAGE INCENTIVE—A MANAGEMENT TOOL

By Donald E. Ackerman, Management Consultant, McKinsey & Co., San Francisco, Calif.

ALONG with the miseries of war has always gone industrial progress. During the First World War the rapid expansion of mass production methods was outstanding. During the present war one of the most striking phenomena has been the rapid acceleration in the widespread use of many modern management techniques, such as production planning, material control, job evaluation, incentive wage plans, and others. Most of these techniques have been perfected between the two world wars.

Since none of these management tools is war-born, it may be expected that, if properly used, they will be equally useful to management in the years which will follow the cessation of hostilities. A review of their characteristics, advantages, and limitations, therefore, is timely.

Nature of Wage Incentives

Of all of these techniques, perhaps wage incentives present the most critical problems, for this technique affects not only the economics of management problems but also the vitally important matter of industrial relations. A wage incentive plan is the frosting on the wage administration cake. It cannot be applied until the cake itself has been planned, baked, the successive layers built up, and a decision made as to the type of frosting best suited to the occasion. Perhaps a clear vanilla frosting is more suitable than chocolate for a birthday cake, but a sticky, lumpy frosting will ruin the whole confection no matter how good it is otherwise.

Unfortunately, the principle of wage incentives is deceptively simple. A wage incentive is simply the extra compensation paid the employee for all production over a specified standard amount per day or hour which results from his exercise of more than normal skill, effort, or concentration, when performing in a predetermined manner, with standard tools, facilities, and materials, stated operations to produce a specified result.

Now why should this perfectly straightforward idea be such a prolific cause of difficulty? Why is it that a wage incentive plan

is often more of a test of management's ability than of labor's productivity? Let's see what problems are involved.

Purpose of Wage Incentives

As our definition indicates, the purpose of an incentive plan is to encourage the employee (president, department head, or janitor) to more than normal production by the expenditure of more than normal skill, effort, or concentration. This is the only sound reason for using incentives, and later on we shall see what happens when they are used primarily for other purposes.

If this encouragement is to be effective, the employee's output of acceptable products (using the specified tools, facilities, materials, and methods) must be limited by nothing except his own effort, skill, and concentration. Stimulation will quickly disappear if the workman must produce a standard product with substandard material, or if he must waste time waiting for his tools to be ground, for his finished work to be taken out of his way, or for anything else which interferes with his unlimited freedom to exercise effort, skill, and concentration for the maximum production of the specified job.

Recently a magnesium foundry was considering an incentive plan. The molder's job was specified as making molds, placing them on racks, and pouring them—nothing more. Casual observation of the floors disclosed that poured molds were not promptly shaken out by the shake-out crew; shaken-out castings were not promptly removed. Both of these limited the space available to the molder for setting up flasks between pours. Furthermore, it happened rather frequently that pots of metal had to be returned to the furnace for reheating after the molder prepared to pour, because temperature control was poor.

In this case the molder's output was limited, not simply by his own effort, but also by factors which were quite outside his control; hence, he would not be stimulated to do his best. Under these conditions an incentive plan is inadvisable. Indeed, even in plants in which much effort has been made to eliminate such retarding influences, a large proportion of the grievances which arise result from pressure from employees for still further progress in this direction.

It is axiomatic, also, that if maximum stimulation is to be se-

cured and if employees are to be satisfied with the plan, no ceiling can be placed on their incentive earnings. This is true even if the proposed ceiling were to be, say, 100 per cent higher than the maximum that could possibly be obtained. The imposition of any ceiling immediately generates distrust of the plan and of the good faith of the management.

Is An Incentive Plan Necessary?

An executive recently stated that he was going to start using an incentive plan "because production per man-day was down 50 per cent from the prewar level." On the face of it, that seems a clear-cut case of the need for stimulation. But is the situation really that simple and is an incentive really required?

In this case a little investigation disclosed that wartime turnover had staffed the plant with a working force almost none of whom had been there prior to the war. None of these new workers, supervisors, setup men, or operators, had been given any systematic training to give them the skill which the former employees had acquired at much expense to the employer by long years of experience. When this was done, production climbed back up to its former level and stayed there. Most employees, if properly treated, *want* to turn out a fair day's work.

The generalization that an incentive plan should be used only when the cake actually requires a frosting and when nothing else will serve could be supported by many similar examples. The detailed, technical work required to establish precise production standards, to modify them as products, equipment, processes, and materials change, to account for incentive pay, to handle the increased number of grievances which often result, all add up to increased production costs and management load. They should not be incurred unless the resulting increase in production more than offsets them and unless no other method of obtaining that increase in production more economically is available.

Unfortunately, many managements, particularly during the war, tend to use incentive plans, not to *supplement* good management, but as *substitutes* for good management. In many cases in which production is low, adequate improvement can be had more economically simply by improvement in operating practices and improved management techniques without having recourse to an in-

centive plan, and this possibility should always be thoroughly explored.

Steps to Take

Brief consideration of the major steps required for developing a wage incentive plan indicates some of the other characteristics of incentives which are of interest to management. These major steps are:

1. Know the plant and its operations thoroughly
2. Determine the stability of the operating pattern
3. Determine that sound operating and management practices (at least to the extent that these affect the ability of the employees to work effectively) are in use
4. Supply employee training, if necessary
5. Provide ample well-trained operating supervision
6. Define each job to be covered by the incentive plan
7. Improve and standardize operating methods
8. Establish production standards
9. Define the incentive plan and its administrative procedure
10. Secure government approval for plan
11. Thoroughly instruct employees in the incentive plan

The first eight of these steps, which are essential and preliminary to the establishment of any successful incentive plan, are also those which often provide sufficient improvement in production so as to obviate the need for an incentive. Almost any company, no matter how soundly managed, would do well to examine these aspects of its operations continuously or periodically to detect opportunities for further improvement and economy.

Know the Operations

It is not unusual for a company to want an incentive plan "like the one that is so successful at Joe Zilch's plant." One such case involved two foundries, one of which made aluminum, brass, and gray iron castings and the second, gray iron castings only. The latter used an over-all plant incentive which, because of the different nature of the operations at the first plant, would have been entirely inapplicable.

In any given situation which calls for an incentive plan the suc-

cess of the incentive depends directly upon the fidelity with which the program is tailored to the general and detailed existing requirements. A "canned" or standard incentive plan, even if designed for a specific industry, is dangerous. The tailoring of a plan obviously requires a thorough knowledge of the plant and its operations.

Determine Stability of Operating Pattern

In deciding whether to use an incentive plan, consideration must be given to all factors affecting production so that due allowance can be made for them in determining the basis for estimating standard production. In most cases requiring an incentive these factors are so stable (or vary so slowly or so systematically) that this allowance can be made. If these production factors are not of this character, proper allowances cannot be made, and an incentive plan cannot be used.

In open pit mining one of the important production factors is the ratio of overburden which must be removed per ton of ore mined. Ordinarily this is constant within satisfactorily narrow limits. In one case, however, unexpected geological conditions were encountered which caused this ratio to vary so erratically that the incentive plan had to be abandoned. In many underground coal mines working conditions at different faces often vary so widely over short periods of time that incentives are impractical. Similar problems are sometimes encountered in plants manufacturing certain types of mechanical products.

Use Sound Practices

Several examples have already been given which indicate how unsound management or operating practices can interfere with production and with the success of an incentive plan. For optimum results all phases of the production planning function (whether administered by a staff department in a larger plant or by the foreman of a smaller one) should be provided in an effective manner. The plan of organization should insure that reports of interferences with production will be quickly relayed to the proper persons, who should be able to reach correct decisions quickly and to take prompt action which is consistent with company policy.

The machinery for handling grievances promptly, correctly, and smoothly should be provided.

Provide Supervision and Training

Many companies regard incentives as a sort of self-policing measure for labor which permits management to economize on supervision. Actually, the industrial executives who are getting the optimum results from their incentive plans, and who are securing *low total* (direct plus indirect) *costs per unit,* generally use somewhat more supervision with an incentive plan than without. The reasons for this are readily apparent. The offer of an incentive holds out to the employee the opportunity for greater earnings. The employer will benefit most from this urge by providing sufficient supervision to (a) rapidly train the employee on the job in what he should and should not do and how he can best use the facilities provided to perform the specified job most quickly; (b) anticipate situations (break-down of machines, lack of work, and others) which would interfere with the continuous operations of the employee and correct them before they occur.

As already noted, men working under an incentive plan are very sensitive to what they regard as management's ineffectiveness, and the incentive thus often gives rise to a new crop of grievances which must be handled promptly and correctly. As a matter of fact, total costs per unit can usually be reduced by using more and better supervision, even if no incentive is used. If an incentive plan is sound and is adopted, increased supervision is often forced on the employer simply by labor pressure to further improve operating conditions so that the employees can work at their maximum level of production at all times.

Define Jobs

Every employee's job should be defined; that is simply good management sense. Only in this way can the man know exactly what he is supposed to do, in what directions he should seek training, and in what respects he possesses shortcomings. If the employee's job is not defined, he cannot be held strictly to account for straying into adjoining fields.

Under a wage incentive each job *must* be clearly defined. Otherwise the employee will tend to omit some parts of it to increase

the number of completed units per day, or management will seek to increase the number of operations, so as to secure more work for less pay. Incentive pay is the purchase price for a specific commodity which is defined in terms of the production standards and job definitions, both of which should be unambiguous.

Standardize Operations

Earlier in the war a company manufacturing a single simple rubber product adopted a plant-wide incentive plan, based on past average output per man, for their hourly-paid employees. An increase in production of about 10 per cent resulted, but the increase was much less than had been anticipated. Analysis indicated that it should be possible to secure an additional increase of 18 per cent in volume without extra employee effort. Something was obviously wrong. The trouble, in this case, was that operations were not standardized at the time the incentive plan was adopted, and no provision had been made for adjusting the production standards when methods were changed. Each employee had been permitted to do his own job (which had not been defined in writing) in any way he chose, and in many cases four or five employees performing the same job did it in different ways. When the incentive plan was adopted, the employees quickly found that they could produce more units and therefore secure incentive pay not by working harder but simply by devising an easier way of doing the job so that with the same effort as before they could make more units. Had the employees possessed the skill and will to do so, they could have progressively improved the methods of performing the various operations until the best method for each purpose was reached. At this point the additional increase of 18 per cent in volume would have been achieved, the incentive pay would be high, and the additional effort expended by the employees would be little more than it was in the first place.

Here someone will say, "What's wrong with that? The company got the increased production and the men got the increased pay." Well, in time of war, anything that increases production is worth whatever it costs. Anticipating the end of the war, however, this little case history illustrates the most expensive way of using incentives. If the management itself had determined the best method of performing each operation, the total increase in production of

28 per cent could have been obtained at no extra cost (since no greater operator effort would be required) other than the operation cost of the methods engineer's salary. Then if, after standardization of the operation, an incentive were still desirable, some further increase in production, resulting from more than normal effort, skill, or concentration, could have been obtained. Standardization of operations, whether an incentive plan is used or not, should always be based upon the best possible method, which can be arrived at only after careful analysis by the experienced methods engineer.

It hardly need be said that when an employee, whose job is operating a machine, does devise a better method of doing his job, his ability should be recognized by a suitable reward proportioned to the magnitude of the savings resulting, and the standard method and the production standard should be changed, accordingly.

Analysis and standardization of methods not only results in substantial improvements in production, even in the absence of wage incentives, but also simplifies the training of less skilled employees and, by providing a definite guide for supervisors, facilitates their task of keeping the operators working in the most effective manner.

Establish Production Standards

All of the steps discussed thus far are taken for the purpose of making it possible to establish a reasonably accurate, reproducible measure of what constitutes a fair day's output for the average employee working at normal physical and mental demand. Incentive payments are made only for production in excess of this standard volume. If the employee is permitted to devise or alter his methods at will or to use methods other than those on which the production standard is measured, there is no way of knowing at what level of effectiveness he is working. If any method other than the best method is permitted, the workman is certainly not working at full effectiveness.

Production standards are just as essential for a plant which does not use an incentive plan as for one that does. In the former case they *need* not be quite as precise, though often they are. Suitable production standards in the non-incentive shop not only permit accurate costs but also give clear criteria by means of which the supervisory force can easily and incontrovertibly detect the inef-

fective employees who can then be given further training. The decision as to whether an employee is or is not satisfactory thus becomes a matter of fact and not of opinion.

Define the Plan

By the time the first seven steps are completed a decision can be made as to whether a plant-wide, group, or individual incentive, or a combination of two or more of these, is best suited to the situation. That type of plan or combination of types should be chosen which most closely relates the measure of increased production to the effort of the individual. In many cases only a group or plant-wide incentive is workable and, under these circumstances, this is better than none at all, but the incentive effect will generally be less than if it could be based upon individual effort.

Care should be taken, of course, to define clearly all the terms of the plan and, whatever form it takes, the method of calculation of incentive pay should be simple enough to be understood and, preferably, used by the average employee. After securing government approval and instructing the employees in the plan, it is ready to be put into execution.

If Incentives Are Inapplicable?

What can be done to increase production in operations which do not lend themselves to incentives?

Under these circumstances most of the management techniques described in steps 1, 3, 4, 5, 6, and 7 are available, and in the large majority of cases effective, even though rough, production standards can be established. In other words, any measure of sound management which is applicable will be helpful. In many cases the results of these measures will be adequate. In addition, effective use can be made of the various nonfinancial incentives—pride in belonging to a progressive organization, pride in being a member of a leading department, and so forth. This is in itself a large subject and will not be discussed here.

When May Wage Incentives Be Used?

The answer to this question can be inferred from what has already been said. If the pattern of stability of the operations makes consideration of a wage incentive feasible, and if, after taking

steps 1 to 8 inclusive, further increase in production is needed, some form of incentive plan can usually be devised. Care must then be taken to maintain the established relationship between the unit of incentive pay and the unit of abnormal employee output; to place no ceiling on incentive earnings; to revise production standards when and only when real changes in methods are made; and finally to administer the plan fairly. In this way, satisfactory results can usually be expected, though skillful management is required.

POSTWAR INVENTORY PROBLEMS AND PROFIT STABILIZATION

By Carl T. Devine, Professor of Accounting, Wharton School of Finance, University of Pennsylvania, Philadelphia, Pa.

THERE is no doubt in the minds of business men that the problems of inventory management in the immediate postwar period will be serious and, in many cases, fatal. It is my purpose to comment briefly on the peculiar nature of the immediate postwar inventory problem and in addition to point out and emphasize certain of these problems which may not be temporary and may persist or even increase in importance during the coming years of peace.

Immediate Postwar Problems

Business men have always had inventory problems. These may result from seasonal variations in demand, changes in styles and in technology, or the business cycle with its ominous shadow of depression; these all have harassed the business man in his quest for inventory policies which will help to increase his over-all profit margins. The dealer in style goods knows that he must provide variety by stocking more units than he can reasonably sell at regular prices. This kind of dealer expects to suffer losses in liquidating his left-over stocks. When a depression sets in, many business men find themselves badly overstocked with high-cost goods whose disposal will usually result in huge losses. In view of the tremendous amount of "conditioning" to which business managers have

been subjected, we may ask, why all the present furor about postwar inventory losses? If business men are ever to learn how to manage their stocks in trade, it certainly seems that they should have profited by their past experiences by this time.

Heretofore, the business man expected to increase his markup during prosperous times so that his additional profits on the upswing would at least cancel his expected inventory losses when a depression set in. With style goods the merchant expected to realize enough on the units sold at regular prices and at special sales to absorb the inventory losses and to provide a satisfactory margin on the entire lot. Often business men took a beating on their inventories, but little sympathy was lavished on them because, it was argued, they had made blunders and were reaping their just reward. Conditions are now different. The customary larger margin during boom years has been, to put it mildly, greatly reduced. In some lines the Office of Price Administration has effectively checked the tendency for larger wartime profits. In other lines renegotiation has whittled down the cushion that normally would be provided. In case the business managed to escape these two restrictions, wartime income tax levies usually drain off any reserves that additional profits might have created. This change in conditions probably accounts for a large part of the anxiety over postwar inventories, but there are other reasons for anxiety.

Many industrial concerns have accumulated large inventories which in ordinary times would be unreasonable. These large inventories are not held for speculative purposes in the usual sense, but they were accumulated as an investment in long-term goodwill. At least one large Baltimore company has expressed anxiety over the huge inventories that must be carried so that it can be sure to carry on its functions. If shortages should develop and if this concern were forced to curtail seriously its functions, management feels that the business would be through. This is typical of many cases in which concerns expect to take a tremendous inventory beating in the interests of consumer service.

Factors Causing Obsolescence

Furthermore, there is widespread fear of inventory (and plant) obsolescence immediately after the war. The unusual obsolescence factor is due to several forces:

1. In many lines the wartime products are definitely inferior, and when standard products again come into the market, it is thought that the wartime substitutes can be sold only at terrific losses.
2. In some cases tremendous technological advances have been made during the war, and consumers will be willing to buy existing commercial stocks only at large discounts.
3. Some cheap lines of what economists call "inferior goods" have been especially hard hit due to the general increase in consumer purchasing power and will probably continue to be unprofitable.
4. The effects of government surplus property disposal cannot be neglected. Regardless of whether these surpluses are fed into the market slowly or dumped during a short period, the resulting effect on some commercial products is likely to be strong.
5. Manufacturers are disturbed also about the disposal of government-owned factories and heavy equipment. If these properties are sold at figures well below depreciated costs, the competition may result in the inability of many concerns to recover their ordinary investments in plant. Competition from purchasers of government facilities at less than cost may well be disastrous to concerns who were unlucky enough to pay full prices for their plants and were unable to accelerate the depreciation on them for government work. This problem is broader than the field of inventories, but the disparity in future burden charges may call for serious adjustment of our costing procedures.

Even the disposal of materials no longer needed on government contracts gives rise to a sizable inventory, or selling, problem. The Government does not have warehousing space to care for these stores, and they must be sold within a reasonable period of time or reconversion will be seriously delayed. In many cases a large part of a concern's sales force may be tied up with the priorities and other regulations involved in the disposal of such material. The various government agencies have seemed more than fair about such disposals, but some businesses will undoubtedly suffer losses in this connection. It is inconceivable that there will not be

some firms who will suffer because of their failure to understand the procedures or because of a few obstinate contracting officers or for other reasons.

Minimizing Inventory Losses

Now that some immediate postwar problems have been enumerated, a more important problem arises: what can be done to solve, or at least to alleviate, them? General answers, as usual, are little better than useless.

It is to be presumed that managements will shuffle their lines and manipulate the size of their physical stocks so as to reduce their inventory losses as much as possible. The methods used will vary with the individual business, but it goes without saying that stocks should be reduced as long as the expected inventory losses on the particular units are greater than the expected profits on the additional sales secured through more complete lines. Certainly, managers should reduce their stocks of goods subject to obsolescence at the first serious rumors of reconversions.

In spite of the general gloom there are, however, some bright spots. It is possible that the price level will not fall rapidly but instead will hold at the present high plateau. If such is the case, the inventory problem is largely one of obsolescence. The net loss carryback and carryover may yield some tax relief, and it is possible that cheap credit may be extended to small businesses after the war. In any event, the financial problem will probably be the most acute, and after the war many credit agencies may find themselves searching frantically for managers to rehabilitate some of their wartime investments. If such diversified operations are not feasible, these credit agencies may find it desirable to have their clients curtail possible dividends until a large part of their inventory loans can be liquidated.

Long-Run Problems

The immediate postwar inventory problems are more or less obvious, but there are social pressures which may develop serious long-range inventory and accounting problems. It is my belief that these pressures will bring about the wide acceptance of accounting procedures for stabilizing reported profits

Perhaps the strongest reason for stabilizing reported profits

comes from the strongly organized labor movement. Business men are well aware of the resistance to lowering the level of wage rates in poor times and the difficulties in resisting wage increases when times are good. Large profits reported in boom years invite requests from labor for a larger share, but many labor leaders usually lack the necessary sympathy in case of depression losses to acquiesce in wage reductions. Consider the railroad industry for an example. During the thirties the net return in the railroad industry was about two per cent. (The exact rate of return differs when expressed in terms of total assets and in terms of residual equities.) With the coming of the war period, most rails reported tremendous profits, even after income and other taxes. Immediately organized labor asked for wage increases, and to complicate matters the Interstate Commerce Commission in the interests of the public asked for rate reductions. The danger to investors in these fields is obvious.

There is another interesting angle to the labor problem in certain industries. Labor leaders in a number of heavy industries are giving attention to the possibility of a guaranteed minimum yearly wage. If this scheme should be put into effect, business men will need to plan their production schedules and inventories carefully. Such planning for the business cycle will result in higher average inventories and thus increase the importance of "paper" profits and losses. Again there may be a strong case for profit stabilization.

Profit Stabilization

The case for stabilized profit reporting has long been presented with reference to taxes and to financial administration. These arguments have been advanced in connection with the agitation for various methods of inventory valuation, such as last-in, first-out, and need no further elaboration.

While there seem to be many arguments for stabilized profit reporting in the postwar years, it is extremely doubtful whether business men and accountants are ready to accept methods and procedures to bring about serious stabilization. Many accountants still feel that profits somehow "ought" to fluctuate and that any attempt to level fluctuations is nothing more than "tinkering" with holy property. The agitation for last-in, first-out has done much to

overcome this irrational fear of "tinkering" by showing that a new definition of income is implied, a definition that usually leads to more useful results. Last-in, first-out is now grudgingly established as an accepted accounting principle or, at least, an acceptable procedure. Yet most cost accountants have not warmed up to the last-in, first-out proposal, and, as a matter of fact, in some manufacturing industries the net result of a switch seems hardly worth while. It is my purpose now to resurrect a defensible procedure with regard to overhead cost allocation that will aid in stabilizing reported income.

It is clear to cost accountants that depreciation charges are often responsible for tremendous swings in reported income. The older conception of depreciation as "decline in value" has now given way more or less completely to the cost approach, which views the depreciation charge as the result of a rational attempt to spread a sunk cost over more than one accounting period. The accepted principle for such cost distribution is that the periodic charges should be proportional to the services to be rendered by the assets. Yet accountants, while professing the benefit or service theory, are usually too orthodox to follow it, and as a rule they stick closely to a general and accepted rule such as the straight-line formula.

Activity as Basis for Overhead Application

There is nothing essentially wrong with taking depreciation on stand-by equipment and buildings only in those periods which the business receives benefit from such assets. This procedure squares with the underlying principle of depreciation and is, in fact, often used in some industries as the "activity" method. Its use may well be extended to cover buildings and other assets which usually are depreciated on a time basis. A warehouse whose physical life is fifty years but whose useful life is limited to ten peak years may be depreciated by having its entire depreciable cost charged to the ten years during which it yields its services. A simple change of this kind would stabilize the cyclical income pattern of many businesses beyond recognition.

Two objections may be raised to this method of apportioning depreciation charges. First, such a procedure increases the likelihood of errors made in estimating. This objection is valid. At best the accountant must make many estimates which require soothsaying

qualities of the highest order. Second, some accountants still feel that reported profits should serve as an index to the volume of business done. This feeling is, of course, ridiculous. Activity is measured by production reports or measures of capacity operations and not by net profits.

The above digression on depreciation methods seems extremely visionary and far afield from the field of inventories. But, strangely enough, the principle behind the suggested depreciation procedure is similar to the principle upon which some early cost accountants based their arguments for unit production costs computed with "normal" burden rates.

The fact that the usual assignment of factory burden results in higher unit costs when activity is low and vice versa is clearly understood. The agitation for taking idle capacity losses immediately to operations has gained momentum in late years. It seems reasonable enough to insist that such costs are costs of idleness and are not properly assignable to product, but from the point of view of useful income reporting this recommendation has little support. The use of normal burden rates, at least for fixed costs, also leaves something to be desired when judged from the reporting angle. The periodic carryover of under- and overabsorbed capacity variances results in a more stable unit cost and in more stable periodic profit figures, but this procedure increases the annual burden charge to expense proportionately with units sold. It is my contention that the unit overhead charge should vary directly with activity and that this charge should increase more than proportionately with output. This contention rests on the principle that periodic depreciation charges should vary with services or benefits received and on the feeling that there will be definite advantages from stabilized income reporting in the postwar period.

THE EFFECT OF WAR ECONOMY ON WAGE AND SALARY ADMINISTRATION

By William F. Weir, Industrial Engineer,
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UNDER the present war economy, the matter of wage and salary administration is of paramount importance in the field of personnel relations. To the wage earner, this has always been a matter of importance; the present state of war and the resulting shortage of labor has merely intensified his interest and placed him in a better bargaining position than that which he usually enjoys. The resulting pressure of wage and salary earners upon employers and the wage and salary stabilization agencies of the Government has brought to the attention of industry more than ever before the need for sound and constructive policies and practices in the field of wage and salary administration.

The very act of compliance with the regulations of the governmental stabilization agencies in many cases has made imperative the establishment of sound and consistent policies of wage and salary administration. Regardless of the controversial nature of the entire question of stabilization, it cannot be denied that under its regulations many industrial organizations were for the first time forced into the adoption of a sound policy of personnel relations and a practical system of wage and salary determination. It is to be hoped that the benefits of such reforms will not be forgotten with the termination of the present war emergency.

Inconsistencies

It has been said that personnel relations begin and end in the pay envelope. This is perhaps an oversimplification of the problem. Certainly, the amount of money received by an employee is of vast importance to him, but he is also greatly affected by the comparison of his compensation with that of his fellow workers. Joe Doakes may agree to work for a wage which is low in comparison with the "going rate" of his job and because of other considerations may be quite content with the arrangement, but if he discovers that others in the same organization are being paid more for the same job or a similar job, he is apt to cause trouble.

The Stabilization Act of 1942 had as its motive, not the equalizing of wages and salaries, but the prevention of inflationary tendencies by "freezing" wages and salaries. Yet the Act recognized the demoralizing effect of wage and salary "inequalities" and "inequalities" within an organization, community, or industry. Thus the Act inferred that industry, in some cases, may not have administered wage and salary determination on logical, equitable principles, and invited industry to take whatever steps were necessary to correct such situations.

Experience has definitely proved that, with respect to personnel relations, inconsistency is a worse evil than inaccuracy. Anyone who has had to live with a foggy and uncertain wage and salary policy has seen its effect on personnel in the form of growing distrust, loss of sense of security, and generally low morale. Anyone who has had to live with a "personalized" wage and salary policy has seen such a policy become one of expediency and favoritism, sinking finally to the practice of greasing the squeaking wheel.

In determining wages and salaries, blind adherence to the going rates of the community usually leads to embarrassing inequalities which are difficult to explain away. It must be obvious that depending on a going rate is dependency on someone else's rule-of-thumb. It is a mathematical truism that the average of a group of inconsistent, inaccurate data can be no more consistent or accurate than the data. The chief values of area wage surveys are the discovery of the inconsistency which prevails in the area surveyed and the experience gained in job analysis necessary to conduct the survey.

Job Evaluation

No one has yet found a way to determine accurately the true value of a job, much less the true value of the services of an individual employee. But anyone of reasonable intelligence can, with a moderate amount of study, properly compare a group of jobs with respect to their relative values. This procedure, known as job evaluation, is by no means a new idea; yet it is a relatively unused technique in the field of personnel relations. For reasons which are hard to understand, many otherwise progressive executives are opposed to the idea of wage and salary evaluation. The most commonly met objection is the belief that wages and salaries

are not subject to scientific measurement but must be determined by one or more of the several rules-of-thumb. It is strange that executives who eagerly grasp at all other tools of scientific management should shy away from scientific measurement of job values. No executive in his right mind would think of setting up a standard cost system based on the "going costs" of the community. Nor would such a person set standard tasks by personal agreement. One wonders what would happen if inventories were evaluated by the same haphazard system which often prevails in the determination of wages and salaries. It would seem that the employees of a plant which uses the finest measuring tools for product inspection, the latest techniques of cost determination, and the most careful analysis and measurement of standard times are at least deserving of the same scientific approach to the determination of their proper wages and salaries.

Characteristics of a Good Plan

Much has been written to describe the various plans of job evaluation. Many types of plans have been developed, and each has its proper application. In the choice or construction of a plan, the essential thing is to use a plan which is specifically designed to meet the needs of the organization in which it is used. Generally speaking, a good plan has at least the following characteristics:

1. It should be so designed as to cover a predetermined scope, and kept within that scope. A plan developed to measure a range of jobs from sweeper to toolmaker will be of no value in the measurement of a foreman's job. A plan designed to cover production jobs only cannot be expected to be sufficiently elastic to measure office jobs as well.

2. It should be predicated on an accurate job analysis of each job measured. Nothing is more hopeless than to attempt to compare a bookkeeper's job with a billing clerk's, if no one knows the duties, responsibilities, and requirements of each job.

3. It should measure the value of the job, not the individual who performs the job. A job evaluation should consider the manner in which the job is normally performed by the kind of individual normally placed in that job. In job evaluation, this is one of the most difficult points to remember. Individual merit rating is, of course, a separate problem.

4. It should measure relative values only; not money values. Job evaluation rests on the principle of measurement of relative worth. The fact that one job may be worth twice as much as another does not necessarily mean that there will be a two to one ratio in wage or salary. There will, however, be a two to one ratio above a base wage or salary, the latter being an element of all wages or salaries of the organization.

5. It should be simple enough to be capable of application by anyone of normal intelligence. No evaluation plan should require the services of a college professor to determine its meaning and application. As with all techniques of personnel relations, complexity breeds confusion and suspicion. A plan which cannot be adequately described to the average employee in a few minutes is likely to be too complicated to be practical.

6. It should leave as little to judgment as possible. Although a certain amount of judgment is unavoidable in any evaluation plan, it is possible, by careful construction, to limit its application to a minimum. Proper job analysis and properly maintained personnel records can contribute to no small degree to the elimination of judgment.

7. It should measure at least the four major factors of job value, which are:

a. The skill required to do the job.
b. The responsibilities inherent in the job.
c. The physical and mental application required by the job.
d. The conditions under which the job is performed.

Each of the above factors of course may be further subdivided to suit the needs of the plan. Skill, for instance, may include such items as experience required, education required, dexterity required, etc.

Wage and Salary Administration

Although the administration of a wage and salary evaluation plan is largely a matter for the personnel division of an organization, the establishment of such a plan and its maintenance involve many problems of an accounting nature. This is because a properly established plan involves matters of facts, figures, and measurements, rather than beliefs, guesses, or arbitrary agreements. To

properly evaluate a job, there must be available a dependable system of comparison of all the factors of that job with all factors of all other jobs. This involves an appreciable amount of record-keeping and a sufficient staff of analysts to keep the plan working. An evaluation plan cannot be expected to run itself. It requires the undivided attention of at least one responsible member of the management of the organization. The larger the organization, the more frequent the changes in job content, and the closer the attention which must be paid to the administration of the plan.

Secondary Benefits

In addition to the benefits for which job evaluation is primarily designed, there are many secondary benefits which cannot be overlooked. The very act of job analysis leads to a thorough study of methods of job performance, with consequent discovery of possible methods of improvement. While this type of analysis has long been applied to production jobs, it is seldom applied to the office jobs, where inefficiency usually exists to a surprising degree. A properly kept evaluation file will yield all the information, usually required in a hurry, which is necessary to answer numerous questions, governmental and private, for wage and salary statistics, job descriptions, comparison data, and many other facts which might otherwise be difficult to unearth.

Administration Policies

Any technique of personnel relations should rest on sound principles of management. A job evaluation plan must embody clearly defined and strictly enforced principles established by the top management of the organization to which it applies.

Of prominent importance today is the question of union participation in wage and salary determination. Experience has shown that if job evaluation is to be used in defense of a wage and salary contested by a union, then the union must either have participation in the formulation of the plan, or must formally agree to its use as a method of settling wage and salary disputes. Under such a provision, disputes are confined to discussion of the proper use and interpretation of the measuring stick used to set wages and salaries. In effect, this procedure is very much like an argument between a workman and an inspector concerning whether the prod-

uct does or does not measure within the allowable tolerance limits of standard specifications.

A problem which frequently arises is the matter of adjustments which are necessary to bring actual wages and salaries in line with evaluated rates. This problem is particularly acute in cases where long application of haphazard policies has made considerable revision necessary. Under the present restrictions of the stabilization program, adjustment is, of course, impossible without the formal approval of the War Labor Board. However, the very requirements of that agency, expressed in General Order No. 31, make some kind of logical schedule of wages and salaries mandatory. Present trends show that the Board is quite agreeable to the use of evaluation as a means of establishing such schedules.

The correlation of relative value, as shown by evaluation, and money value is a problem which must be solved with definite policies in mind. It must be remembered that the basic purpose of evaluation is the achievement of consistency of wage and salary structure. It is not intended as a means of generally increasing or decreasing wages and salaries. Since this is the case, one of several statistical methods may be used to determine the "line of best fit" to express the correlation between relative values and money values of the various jobs. In cases where rate ranges are used, the line representing the relationship will have a width representing the extent of the ranges.

Future Aspects

No one can seriously question the fact that the present war economy has wrought many changes in methods, practices, and policies of the typical industrial organization. Numerous innovations in procedure have been developed through necessity, government direction, or the pressure of one group or another. Some apparent innovations are truly new ideas; some old ideas have been given unusual publicity because of the present emergency; and some are simply old ideas dressed up in new forms. Many practices and techniques of the present will disappear with the end of the war emergency, but others which have proved their worth undoubtedly will be perpetuated.

It was during the last world war that the science of industrial engineering, based upon the principles of scientific management,

was truly developed. It has remained for the present war to give impetus to the need for a scientific approach to the economic problem of wage and salary determination. As in the case of all other components of scientific management, there has always been a need for such an approach. Postwar planners must and will recognize this need and will take concrete steps to provide management with adequate tools and techniques.

An organization which has never used scientific methods of wage and salary determination will find, upon the adoption of such an approach, that it has, for the first time, a logical answer to Joe Doakes' eternal question: "Why does my job pay less than John Doe's?" It will be able to go a long way toward reducing the major personnel problem to facts and figures. When this is done, it will have taken a long step in the direction of constructive, harmonious personnel relations.

COST CURRENTS

SHORT REPORTS ON CURRENT ITEMS OF INTEREST TO INDUSTRIAL ACCOUNTANTS

Termination Cost Memorandum No. 9—Loss on Facilities—The Office of Contract Settlement has recently issued Termination Cost Memorandum No. 9 which now becomes a part of Regulation 14 (reported in the March 15, 1945, *Bulletin*). This memorandum deals with losses on special facilities acquired for fixed-price supply contracts and defines and interprets the language of the corresponding section of the Statement of Cost Principles. The complete memorandum is as follows:

Fixed-price supply contracts; loss on facilities

(a) *Reference to Statement of Cost Principles*

(1) The statement provides for the inclusion of loss on facilities as follows (paragraph 1 (f)):

> *Loss on facilities; conditions on allowance.* In the case of any special facility acquired by the contractor solely for the performance of the contract, or the contract and other war production contracts, if upon termination of the contract such facility is not reasonably capable of use in the other business of the contractor having regard to the then condition and location of such facility, an amount which bears the same proportion to the loss of useful value as the deliveries not made under the contract bear to the total of the deliveries which have been made and would have been made had the contract and the other contracts been completed: *Provided*, that no amount shall be allowed under this paragraph unless upon termination of the contract title to the facility is transferred to the Government, except where the Government elects to take other appropriate means to protect its interests.

(2) Loss on facilities is included among the costs subject to limitation under paragraph 1 (i) of the Statement of Cost Principles.

(b) *Definitions*

(1) The term "special facility," as used herein, means a facility acquired by the contractor solely for the performance of the contract, or for the contract and other war production contracts, which is not of the same type or utility as those used in the contractor's other business. A machine which is standard for one contractor may be "special" in the hands of a contractor who does not use such a machine in its other business. The term "special facility" does not include jigs, tools, dies, and fixtures of the type referred to as "special tooling" in paragraph 1 (e) of the Statement of Cost Principles.

(2) The phrase "other war production contracts" refers only to such war production contracts as were in existence at the time of acquisition of the facility or were at that time so certain to be entered into that the facility could reasonably have been acquired for them, as well as for the terminated contract. For purposes of this memorandum, time of acquisition means the date an order was placed to acquire the facility or the date of authorization of construction of the facility by the contractor.

(3) The phrase "other business of the contractor" refers to all present and prospective business reasonably anticipated other than the contract or contracts for which the facility was acquired. It includes both war and non-war business.

(4) Facilities will be considered "reasonably capable of use in the other business of the contractor" and, therefore, not subject to the loss provisions of the Statement of Cost Principles, so long as they would require only relatively minor changes in their physical condition or location to render them capable of such use in a reasonably economical manner. Those facilities which are physically capable of use in the other business of the contractor will qualify for the loss provisions only if (i) they would require a relatively large expenditure to change their character or location in order to make them capable of economic use or (ii) the character of the facilities would prevent their use in a reasonably economical manner.

(c) *Interpretations*

(1) Whether the special facility is retained by the contractor after termination, is sold, or transferred to the Government, the entire cost of the facility represents the "loss of useful value" which is the amount to be allocated in accordance with subparagraph (2) of this paragraph. Where the contractor sells the facility to a third party (other than the Government) or retains it for its own use or as scrap, the proceeds of sale or the retention value should be treated as a disposal credit in the contractor's settlement proposal and not as a reduction of the amount to be allocated. Where provision for loss on facilities is in-

cluded in a settlement, depreciation or amortization on the same facilities will be excluded.

(2) Ordinarily, the unit quantities of deliveries, as provided in paragraph 1 (f) of the Statement of Cost Principles, will be an acceptable basis for the allocation of the cost of the facilities (i) to the terminated contract where more than one contract is involved and (ii) between the completed and terminated portions of the contract. However, if the contract or contracts include products of a diverse nature, some other equitable basis may be used, such as machine or labor hours.

(3) Particular care should be taken to determine that a facility is a special facility as herein defined. The bid proposal or other records relating to the negotiation or performance of the contract, which may indicate whether such acquisition of the facility was contemplated by the parties, are important, but not necessarily controlling, evidence that the facility was acquired solely for the contract or for the contract and other war production contracts. In the absence of such specific evidence, other satisfactory evidence will be required. In no case will the contractor's unsupported assertion on this point be considered sufficient, and a representation by the contractor at the time the contract was negotiated that it did not need additional facilities for its performance will indicate that such acquisition was not contemplated.

(4) The contracting agency should determine which of the following alternatives appear, in the exercise of sound judgment, best to protect the Government's interest:

(i) For the contractor to transfer title to the Government; or

(ii) For the contractor to transfer title to a third party, giving the Government a proper disposal credit; or

(iii) For the contractor to retain title, giving the Government a proper disposal credit, and, where it is determined to be to the Government's interest, to execute a standby agreement containing such of the following commitments as the Government deems appropriate: (a) to maintain such facilities in good condition at the contractor's expense for a designed period; (b) to maintain title free of incumbrances; (c) to make no material alteration in such facilities; (d) to give priority to Government orders for the designated period; and (e) in negotiating other Government supply contracts, to recognize, as a cost, not more than a proper proportion of the disposal credit as depreciation for such facilities.

Where title is not transferred to the Government, the procedures followed to establish the propriety of the disposal credit should be the same, regardless of whether the facilities are retained by the contractor or sold to a third party.

Chapter Meetings

May, 1945

Chapter / *Meeting Place*	*Date*	*Subject and Speaker*
Akron Portage Hotel	15	Panel Discussion: *Questions That Will Stump Experts* Chairman: V. L. Raasch, Secretary-Treasurer, Twin Coach Co.
Albany DeWitt Clinton Hotel	15	*Distribution Cost Analysis and Control* H. D. Anderson, Scovell, Wellington & Co.
Atlanta Atlanta Athletic Club	15	Forum: *Standard Costs Coordinated with Pricing* In charge: Kenneth T. Rudd, Link Belt Co.
Baltimore Emerson Hotel	22	*The Economic Outlook* Dr. Ivan E. McDougle, Professor of Economics and Sociology, Goucher College.
Binghamton Arlington Hotel	24	*Chapter Forum and Annual Election* Chairman: Donald J. Duvall, Monroe Calculating Machine Co.
Birmingham Hotel Thomas Jefferson	15	*Accounting Trends in Recent Years* C. M. Jesperson, Lee Brothers Foundry Co.
Boston Hotel Vendome	9	*Financial Data Requirements for Banking Credit* Lloyd D. Brace, Vice President, The First National Bank of Boston.
Bridgeport Stratfield Hotel	17	*Cost and Pricing Problem of Reconversion* Eldon S. Shoup, Regional Director, Office of Price Administration, Boston.
Brooklyn Central Branch, Y. M. C. A.	16	*Cost Accounting and Management Policy* Martin A. Moore, Comptroller, Hyatt Bearings Div., General Motors Corp.
Buffalo Church of the Covenant Auditorium	24	*World Monetary Problems and Effect on American Industry* Charles H. Diefendorf, President, Marine Trust Co.
Cedar Rapids Roosevelt Hotel	23	*Common Failures in the Functioning of an Accounting System* I. B. McGladrey, McGladrey, Hansen, Dunn & Co.
Chattanooga Hotel Patten	17	*Employer-Employee Relationship, Yesterday, Today, and Tomorrow* Keith J. Harris, Ross-Meehan Foundries.
Chicago Furniture Club of Amer., Amer. Furniture Mart	24	*The Relation of Time Study to Cost Control* H. K. Von Kaas, Industrial Engineer, Globe Union, Inc.
Cincinnati Hotel Gibson	17	*Current Problems in Accounting* Frederick Heinritz, Certified Public Accountant.

Chapter Meeting Place	Date	Subject and Speaker
Cleveland Carter Hotel	17	*The Budget and the Human Side of Figures* Kenneth W. Thompson, Chief Branch Accountant, The Kroger Grocery & Baking Co.
Columbus Fort Hayes Hotel	17	*The Budget Analyst and Cost Accountant* Siva Bender, Cost Auditor, Libby Glass Div., Owens-Illinois Glass Co.
Cuba	31	*Supervision and Accounting for Labor* Justo G. Ruiz, Ferrocarriles Unidoes de la Habana.
Dallas Melrose Hotel	18	*Blast Furnace Costs* Curtis H. Cadenhead, Principal, Haskins & Sells.
Dayton Van Cleve Hotel	15	*Management Problems in Present-Day Economy* C. L. Kingsbury, Vice President and General Manager, Rustless Iron & Steel Corp.
Decatur Decatur Club Bldg.	17	Panel Discussion: *The Application of Workmen's Compensation, Boiler, and Machinery Insurance to Production Costs* Chairman: W. R. Boyer, A. E. Staley Mfg. Co. Panel of three.
Denver Cosmopolitan Hotel	15	*—O Nite—New Thoughts in the Accounting Field* Denver Chapter's Past Presidents.
Des Moines Younker's Tea Room	17	*Industrial Engineering and Its Relations to Cost* Claude McBroom, Director of Personnel and Methods Engineer, Meridith Publishing Company.
Detroit Detroit-Leland Hotel	17	*Operating and Financial Balance Through Budgets* V. Richard Bechtel, Budget Director, American Cyanamid Co.
Erie Blue Room, L. O. O. M.	21	*Does Budgeting Really Pay?* J. Brooks Heckert, Associate Professor of Accounting, Ohio State University.
Evansville McCurdy Hotel	9	*Property Depreciation* Fred W. Jackson, Vice President, American Appraisal Co.
Fort Wayne Chamber of Commerce	15	*Government, Business, and the Accountant* William Mason, Public Relations Director, General Tire & Rubber Co.
Grand Rapids Rowe Hotel	15	*Current Accounting Problems* Clarence H. Koebe, Ernst & Ernst.
Greenwich Hugo's Piccadilly Restaurant, Stamford	15	*Business Research for Postwar Survival* Robert B. Blinkerd, Vice President, Prentice-Hall, Inc.
Hagerstown Alexander Hotel	17	*Production Control* W. E. Crotsley, Director of Department of Manufacturing Control Education, International Business Machines Corp.
Hampton Roads Albany Restaurant, Norfolk	18	*Accounting Reports for Competitive Enterprise* Martin A. Moore, Comptroller, Hyatt Bearings Div., General Motors Corp.

Chapter Meeting Place	*Date*	*Subject and Speaker*
Harrisburg Penn-Harris Hotel	15	*Accounting Control; Observations on Its Past and Future* Dr. J. W. McMahon, Allegheny College.
Hartford Elm Tree Inn, Farmington	15	Open Forum Discussion: *Current Problems in Cost Accounting* Panel of Past Presidents.
Hawaii Commercial Club	1	Subject and Speaker to be announced.
Houston Y. M. C. A.	16	Symposium: *Inventory Valuation and Control* Chairman: Walter C. Burer, J. A. Phillips Co.
Indianapolis Lincoln Hotel	16	*Forum of Season's Subjects* Current year's Meeting Chairmen.
Jackson Heidelburg Hotel	17	*Talk* Seth L. Winslow, McKinsey, Kearney & Co.
Jamestown Hotel Jamestown	22	*When Is a Job Shop Not a Job Shop?* F. F. Hoyt, Vice President, Carrier Corp.
Kansas City Hotel President	21	*A Report of the Activities of the Chapter During the Season and a Resumé of Topics Presented at Previous Meetings* James A. Masters, Manager of Accounting Department, Sears, Roebuck & Co.
Lancaster Hotel Brunswick	25	*There's No Mystery to the Standard Cost Plan* Robert B. Service, Jr., Auditing Dept., Norton Co.
Lehigh Valley Hotel Easton, Easton	18	*The Economic Outlook* Dr. Neil Carothers, Dean, College of Business Administration.
Los Angeles Scully's Restaurant	15	*Book Reserves Versus Liquid Fund Reserves* H. E. Ludwig, Controller, Firestone Tire & Rubber Co. of California.
Louisville Brown Hotel	15	*Wage Costs and Unemployment Problems* Charles W. Williams, Professor of Economics, University of Louisville.
Maine (State of) Lafayette Hotel, Portland	18	*What Management Expects from the Cost Accountant* Dr. Charles Reitell, Stevenson, Jordan & Harrison, Inc.
Memphis Rotary Lift Co.	16	*Manufacturing Cost Problems* Oliver Cathey, Secretary, Rotary Lift Co.
Milwaukee Milwaukee Athletic Club	21	*Human Factors in Production, Administration, and Supervision. Are These Costs Hidden?* C. Don Modica, Professor and Director of Research, Management Dynamics, University of Chicago.
Minneapolis Curtis Hotel	14	*Cost Accounting in the Education of Management* Dr. Richard L. Kozelka, Dean, School of Business Administration, University of Minnesota.
Nashville Andrew Jackson Hotel	8	*Wartime Training for Accountants* Charles E. Crouch, Associate Professor of Accounting, Vanderbilt University.

Chapter Meeting Place	Date	Subject and Speaker
Newark Hotel Robert Treat	24	*Job Evaluation—What Is the Work Worth?* George W. Chane, Supervisory Engineer, Ernst & Ernst.
New Hampshire Carpenter Hotel, Manchester	8	Forum Meeting: *Current Problems in Cost Accounting* Chairman: Nathaniel F. Bigelow, Jr., C.P.A.
New Haven Graduates Club	22	Panel Discussion: *Current Accounting Problems* Panel of four.
New Orleans Jung Hotel	16	*Postwar Training Program for Cost Accountants* Commander T. W. Noel, Accounting Officer, U. S. Naval Repair Base.
New York Hotel New Yorker	28	*The Place of Accounts and Accounting in Today's Economy—Lessons from the Year's Program* Maurice E. Peloubet, Partner, Pogson, Peloubet & Co.
Peoria Jefferson Hotel	16	*Mock Stockholders' Meeting* Chairman: Merle R. Yontz, R. G. LeTourneau, Inc.
Philadelphia Kugler's Chestnut St. Restaurant	24	*Cost Forum* Discussion Leader: George A. Hewitt, Partner, Lybrand, Ross Bros. & Montgomery.
Pittsburgh Fort Pitt Hotel	16	*1945 Internal Auditing Program* H. A. MacKinnon, Assistant Comptroller, General Electric Co.
Portland Heathman Hotel	15	*Installation of a Cost System* Charles E. Rawlinson, Price, Waterhouse & Co.
Providence Crown Hotel	21	*Relationship of the Industrial Engineer and the Industrial Accountant* Dr. Charles Reitell, Stevenson, Jordan & Harrison, Inc.
Reading Wyomissing Club	18	*High Costs of Failing to Work Together* John F. Davis, Secretary and Manager, Reading Chamber of Commerce.
Richmond Hotel John Marshall	17	*The Cost Accountant's Role in Competitive Enterprise* Martin A. Moore, Comptroller, Hyatt Bearings Div., General Motors Corp.
Rochester Seneca Hotel	16	*Cost Research—A Road to Better Management* W. E. Jackman, Accounting Supervisor, Color Print Service, Eastman Kodak Co.
Rockford Hotel Faust	17	*A Public Accountant Looks at Cost Accounting* John W. Conrad, Lybrand, Ross Bros. & Montgomery.
St. Louis Hotel Coronado	15	*Control of Insurance Costs* Alvin A. Coate, President, Insurance Audit & Inspection Co.

Chapter Meeting Place	*Date*	*Subject and Speaker*
Saginaw Valley Zehnder Hotel, Frankenmuth, Mich.	15	Forum Meeting: *A New Idea That Has Saved Us Time or Money* Program Director: Carl J. Faist, City of Saginaw.
San Francisco Engineer's Club	22	*Accounting Reports for the Executive* Myron M. Strain, Dean, Graduate School of Accountancy, Golden Gate College.
Scranton Hotel Casey	21	*Production Control* Walter E. Crotsley, Director of the Department of Manufacturing Control Education, International Business Machines Corp.
South Bend LaSalle Hotel	15	*What Do the Figures Mean?* Dr. L. Thomas Flatley, Partner, Zick, Price & Co.
Springfield Hotel Sheraton	16	*Internal Auditing* D. M. Sheehan, Comptroller, Monsanto Chemical Co.
Syracuse Hotel Syracuse	17	Panel Discussion: *Cost Problem Round-Up* Panel of four Past Presidents.
Toledo Secor Hotel	22	Panel Discussion: *Accounting Problems* Past Presidents' Forum
Tri-Cities Le Claire Hotel, Moline	15	*The Cost Accountant's Importance to Management* N. L. McCully, Controller, Bauer & Black Co.
Tulsa Mayo Hotel	15	*The Growing Responsibility of the Accountant* J. Hugh Jackson, Dean, Stanford University.
Utica Hotel Hamilton	14	Forum: *Budgetary Control* Chairman: Jay Sarles, Rome Cable Corp. Co-Chairman: Donald G. Hoffman, International Heater Co.
Wabash Valley Terre Haute House	8	*Property Depreciation* Fred W. Jackson, Vice President, American Appraisal Co.
Washington Washington Hotel	16	*Wartime Inventory Problems* C. Howard Knapp, Stevenson, Jordan & Harrison, Inc.
Wichita Broadview Hotel	15	*The Growing Responsibility of the Accountant* J. Hugh Jackson, Dean, Graduate School of Business, Stanford University
Williamsport Lycoming Hotel	14	*Present-Day Accounting Problems* V. L. Elliott, Controller, The Atlantic Refining Co.
Worcester Sheraton Hotel	17	*Designing a Cost System for an Aircraft Industry—A Case Study* Dr. Adolph Matz, Systems and Procedures Div., Edward G. Budd Mfg. Co.
York Hotel Yorktowne	16	Forum: *Current Cost Problems* William H. Musser, S. Morgan Smith Co.
Youngstown Tippecanoe Country Club	16	*Financial Management Policies* R. B. Hays, First Vice President, Federal Reserve Bank, Cleveland.